



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,526	09/29/2006	Takeyoshi Yamada	20692/0205418-US0	1324
7278	7590	07/23/2009		
DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER FERGUSON, LAWRENCE D	
			ART UNIT	PAPER NUMBER
			1794	
			MAIL DATE	DELIVERY MODE
			07/23/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/599,526

## Applicant(s)

YAMADA ET AL.

## Examiner

Lawrence D. Ferguson

## Art Unit

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-17, 19-25 and 28-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-17, 19-25 and 28-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This action is in response to the amendment mailed March 30, 2009.

Claims 9-10, 12 have been amended, claims 18 and 26-27 were cancelled and claims rendering claims 9-17, 19-25 and 28-37 pending.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections – 35 USC § 103(a)***

3. Claims 9-16, 19-25 and 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satani et al (EP 1270203).

Satani discloses a heat shrinkable polyolefin film comprising surface layers (12) composed of a resin material containing a cyclic olefin resin as a main component and an intermediate layer (14) composed of a resin material containing a polyethylene resin as a main component and cyclic olefin (page 2, lines 41-48 and page 3, lines 43-44).

Satani further teaches the cyclic olefin material of the surface layers can be mixed with polyethylene (page 4, lines 7-10) where 80% by weight of the surface layers can be cyclic olefin copolymer resin and 20% by weight of the surface layers can be polyethylene (page 6, lines 41-

46) which meets the mass ratio limitation of surface layer (I). Satani discloses the polyethylene resin of the intermediate layer can be linear low density polyethylene (page 3, lines 22-26) where Applicant's instant specification discloses linear low density polyethylene resins has a crystal melting peak temperature ( $T_m$ ) that is no greater than  $125^{\circ}\text{C}$ , as measured with a differential scanning calorimeter (DSC) on page 14, line 1 through page 15, line 9. The film is heat shrinkable in the direction of main shrinkage (page 4, lines 38-40). Satani discloses three or more layers comprising two surface layers and an intermediate layer (page 3, lines 10-14). Because there can only be two surface layers, it is reasonable to expect multiple intermediate layers, such as three intermediate layers, between the surface layers, where the intermediate layer (14) comprises both a polyethylene and cyclic resin, which meets the requirements of claimed layers II and III and the layer arrangement of (I) layer/(II) layer/(III) layer/(II) layer/(I) layer or (I) layer/(III) layer/(II) layer/(III) layer/(I) layer. Because Satani discloses a heat shrinkable polyolefin series laminated film comprising similar layers having similar materials and similar function, it is expected for the film to have a heat shrinking ratio upon immersion in hot water at  $80^{\circ}\text{C}$  for 10 seconds of 20% or more in at least one of the directions, as in claim 9-11. In claims 9-11, Applicant claims the phrase, "as measured with a differential scanning calorimeter (DSC)." Regardless of the method used to measure a characteristic, the characteristic measured is not altered.

Concerning claim 12, because Satani discloses a heat shrinkable polyolefin series laminated film comprising similar layers having similar materials and similar function, as disclosed above, it is expected for the film to have a heat shrinking ratio upon immersion in hot water at  $100^{\circ}\text{C}$  for 10 seconds of 60% or more in the main shrinking direction, and a maximum

shrinking stress in the main shrinking direction of the film upon immersion silicon oil at 80 °C for 10 seconds of 10 MPa or less. In claim 12, Applicant claims the phrase, “as measured with a differential scanning calorimeter (DSC).” Regardless of the method used to measure a characteristic, the characteristic is not altered.

Concerning claims 13-14, the intermediate layer is 60 to 90% of the total thickness of the film (page 2, lines 47-50).

Concerning claim 15, because Satani discloses a heat shrinkable polyolefin series laminated film comprising similar layers having similar materials and similar function, as disclosed above, it is expected for the film to have a modulus of elasticity in tensile of 1200 MPa or more in the direction orthogonal to the main shrinking direction of the film. In claim 15, Applicant claims the phrase, “as measured according to JIS K7127”. Regardless of the method used to measure a characteristic, the characteristic is not altered.

Concerning claims 16 and 24-25, the reference discloses another olefin resin can be mixed in the resin material of the intermediate layer in an amount of 0 to 15% by weight (page 3, lines 31-37).

Concerning claims 19-21 and 28-33, the heat shrinkable film has a specific gravity of less than 1 (page 2, lines 41-43).

Concerning claims 22-23 and 34-37, the heat shrinkable film is made into a label (printer layer) which can be attached to a bottle (container) (abstract and page 2, lines 5-6, 41-43) where the film, which is made into a label, has a specific gravity of less than 1 (page 2, lines 41-43).

***Claim Rejections – 35 USC § 103(a)***

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Satani et al (EP 1270203) in view of Ueyama et al (U.S. 6,699,549).

Satani is taken as above. Satani does not disclose one of the layers further comprising liquid paraffin. Ueyama teaches a heat shrinkable multilayer film suitable for use as a heat shrinkable material (column 1, lines 7-8 and column 4 lines 6-7) having an inner layer that includes linear low density polyethylene (column 5, lines 51-53). Ueyama further teaches it is conventional to add an additive into any of the layers, including the linear low density polyethylene intermediate layer, such as a lubricant, which includes liquid paraffin (column 6, line 62 through column 7, line 2).

Satani and Ueyama are combinable as they are both directed to heat shrinkable multilayer materials. Therefore, it would have been obvious to one of ordinary skill in the art to include liquid paraffin in the layers of Satani to achieve the predictable result of preventing the heat shrinkable films of Satani from sticking to one another, when not in use and because Ueyama teaches it is conventional to add lubricants, such as liquid paraffin to heat shrinkable film layers.

***Response to Arguments***

5. The rejection made under 35 U.S.C. 112, second paragraph is withdrawn due to Applicant amending claims 9 and 12 to more particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection made under 35 U.S.C. 102(b) as being anticipated by Satani et al (EP 1270203) is withdrawn due to Applicant incorporating cancelled claim 18 into claim 1, which is not anticipated by Satani.

Applicant's arguments of the rejection made under 35 U.S.C. 103(a) as being unpatentable over Satani et al (EP 1270203) in view of Ueyama et al (U.S. 6,699,549) has been considered but is unpersuasive. Applicant argues Satani does not describe heat shrinkable polyolefin films that contain 5 layers, or 5 layer films having either layer arrangement of (I) layer/(II) layer/(III) layer/(II) layer/(I) layer or (I) layer/(III) layer/(II) layer/(III) layer/(I) layer. Satani discloses three or more layers comprising two surface layers and an intermediate layer (page 3, lines 10-14). Because there can only be two surface layers, it is reasonable to expect multiple intermediate layers, such as three intermediate layers, between the surface layers, where the intermediate layer (14) comprises both a polyethylene and cyclic resin, which meets the requirements of claimed layers II and III and the layer arrangement of (I) layer/(II) layer/(III) layer/(II) layer/(I) layer or (I) layer/(III) layer/(II) layer/(III) layer/(I) layer.

Applicant further argues Satani instructs that a surface layer that contains both cyclic olefin and polyethylene should not have more than 5% polyethylene as at page 4, lines 10-11. Examiner acknowledges Applicant's argument; however, Applicant is limiting the scope of Satani's disclosure. Page 6, lines 41-46 discloses that it is possible to have 80% by weight of the surface layers as cyclic olefin copolymer resin and 20% by weight of the surface layers as polyethylene (page 6, lines 41-46). Applicant argues Satani does not teach intermediate layer (III) because intermediate layer III contains cyclic olefin as the main component. Intermediate

layer III requires cyclic olefin; however does not disclose cyclic olefin as a main component, as argued by Applicant.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is 571-272-1522. The examiner can normally be reached on Monday through Friday 9:00 AM – 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample, can be reached on 571-272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lawrence Ferguson/  
Patent Examiner, Art Unit 1794

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794